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Applicant: FUJI ELECTRIC CO.LTD

Creator: Tomoaki KAWAI

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FIG. 3 is a block diagram of a conventional ultrasonic probing device. FIGS. 4A and 4B are enlarged views of main parts of FIG. 3. FIG. 4A is a plan view, and FIG. 4B is a cross section taken on the line X-X of FIG. 4A. In FIGS. 3, 4A, and 4B, numeral 1 denotes a piezoelectric vibrator as an ultrasonic element which, when a voltage as a wave-transmission-command signal 2 is applied, emits an ultrasonic beam 3 from a wave transmission-reception surface 1a formed in a spherical shape, and which, when an ultrasonic wave incident on the wave transmission-reception surface 1a is received, outputs a voltage signal as a wave reception signal 4 in accordance with the ultrasonic wave. Numeral 5 denotes a coaxial cable used both as a transmission path of the wave-transmission-command signal 2 and as a transmission path of the wave reception signal 4. Numeral 6 denotes a pin-shaped coaxial terminal that is provided in a connector plug 7 and connected to one end of the coaxial cable 5 whose the other end, not shown for convenience in the description, is connected to an electrode, not shown, of the piezoelectric vibrator. Numeral 8 denotes a square, dish-like vibrator support that is inserted and fixed with an adhesive as shown in the

figure. Numeral 9.9 denotes a rotating shaft fixed to the vibrator support 8. Numeral 10 denotes a coupling mechanism which pivotally supports the rotating shaft 9.9 and which is driven by a two-phase motor 11 rotating in the direction in accordance with a drive signal 12 when a drive voltage is inputted as the drive signal 12 so as to cause the vibrator support 8 to rotate about the rotating shaft 9. In this case, the vibrator 1, the vibrator support 8, and the rotating shaft 9 are configured such that rotating the vibrator support 8 as described above causes an axis line 3a of the ultrasonic beam 3 emitted from the vibrator 1 to rotate within one virtual plane P.

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The terminals A to E are configured such that they can be detachably connected to each other with a jumper line 33 in the connector plug 28 as illustrated in the figure. The signal processing portion 31 is configured such that the potential of the terminal E is set at 0 volt via the connector joint 30. Moreover, in this case, when respective potentials of the terminals A to D are inputted into the signal processing portion 31 via the connector joint 30, assuming that a correction signal 34 has been inputted which expresses a correction value M for correcting an error $\Delta\theta$ in the emission direction of the ultrasonic beam 3 included in the beam direction signal 15a in coded combination of binarized potential states of the terminals A to D whose potential states are binarized depending on whether or not the jumper line 33 is connected, the signal processing portion 31 first corrects the value of the emission direction of the ultrasonic beam 3 expressed by the signal 15a inputted into the signal processing portion 31 by the use of the correction value M expressed by the signal 34. After a predetermined period of time, the same signal processing as is performed by the signal processing portion 25 is performed by the use of the emission direction of the ultrasonic beam 3 and the reception signal 4.